

# ● PRINTER RUSH ●

(PTO ASSISTANCE)

Application : <u>10/064,691</u>	Examiner : <u>Nguyen</u>	GAU : <u>2632</u>
From : <u>MR</u>	Location : <u>IDC</u> FMF FDC	Date : <u>10-12-05</u>
Tracking # : <u>EPM/0064/691</u>		Week Date : <u>07-04-05</u>

DOC CODE	DOC DATE	MISCELLANEOUS
<input type="checkbox"/> 1449	_____	<input type="checkbox"/> Continuing Data
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<input type="checkbox"/> 312	_____	
<input checked="" type="checkbox"/> SPEC	<u>08-07-02</u>	

[RUSH] MESSAGE: ① Paragraph 0029 of specification pag. 5 has some data missing. See line 1 of the paragraph.

② Paragraph 0079 - please verify what characters are on the hold up - hold down after 'T' at the end of the paragraph. The characters are illegible.

Thank you,  
MR

[XRUSH] RESPONSE: \_\_\_\_\_

See M3C comment

DONE

INITIALS: MR

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REV 10/04

**ARTZ & ARTZ P.C.**  
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Division**FIRM:** USPTO**FAX NO.:** (703) 308-6642**From:**Kevin G. Mierzwa**Date:**December 2, 2005**Our File No.:**(FGT 1619 PA)**Your Ref. No.**10/064,691**Comments:**Attached is response to Notice to File Corrected  
Application Papers dated 11/7/05.**Total Pages (incl. Cover sheet):** 7

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Patent Application of

Monirul Huq Talukder

Serial No. 10/064,691

Art Unit: 2632

Filed: 08/07/2002

Examiner: Nguyen, Phung

For: METHOD AND APPARATUS FOR AUTOMATICALLY IDENTIFYING  
THE LOCATION OF PRESSURE SENSORS IN A TIRE PRESSURE  
MONITORING SYSTEM

Attorney Docket No: 201-1389

**CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. § 1.8(a))**

I hereby certify that this correspondence is, on the date shown below, being transmitted by facsimile to (703) 308-6642, ATTENTION; Rori Burch, USPTO Publishing Division, Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.

Signature

Date: 12-2-2005

Kevin G. Mierzwa

**TRANSMITTAL OF CORRECTED APPLICATION PAPERS**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to the Notice to File Corrected Application Papers dated November 7, 2005,  
please enter the following corrections in the specification:

U.S.S.N. 10/064,691

2

201-1389

**In The Specification:**

Page 5, please replace paragraph [0029] as follows:

[0029] In the following figures, the same reference numerals will be used to illustrate the same components. Those skilled in the art will recognize that the various components set forth herein could be changed without varying from the scope of the invention.

Page 19, please replace paragraphs [0078] and [0079] as follows:

[0078] The system may also activate the timer noted above. By determining a time signal from the time of reset and measuring the vehicle speed at various times, the distance traveled may be generated according to the formula

$$D_i = \sum_{n=1}^i V_i * \Delta T_{i-1}^i$$

[0079] where  $D_i$  is the distance traveled from the time the mini-spare is started to be used until the  $i$ th measurement of vehicle speed,  $V_i$  is the  $i$ th measurement of vehicle speed, and

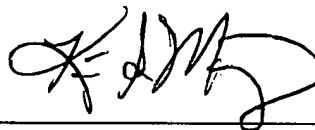
$$\Delta T_{i-1}^i$$

A copy of the Notice to File Corrected Application Papers is submitted herewith.

The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 06-1510.

Respectfully submitted,

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Date: 12-2-2005

**UNITED STATES PATENT AND TRADEMARK OFFICE**

Commissioner for Patents  
P.O. Box 1450  
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Serial Number  
10064691

Date Mailed  
11/07/05

**NOTICE TO FILE CORRECTED APPLICATION PAPERS*****Notice of Allowance Mailed***

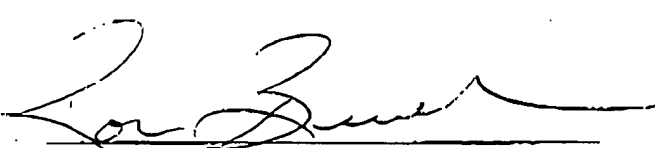
This application has been accorded an Allowance Date and is being prepared for issuance. The application, however, is incomplete for the reasons below.

Applicant is given 30 days from the mail date of this Notice within which to correct the informalities indicated below. A failure to reply will result in the application being ABANDONED. This period for reply is NOT extendable under 37 CFR 1.136 (a) or (b).

- Page 5 paragraph [0029] data missing.
- Page 19 paragraph [0078] and [0079] have illegible data.

**APPLICANT MUST SUPPLY MISSING INFORMATION WITHIN 30 DAYS OF THE MAIL DATE OF THIS NOTICE.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,691	08/07/2002	Monirul Haq Talukder	201-1389	9313
22x44	7590	11/07/2005	EXAMINER	
FORD GLOBAL TECHNOLOGIES, LLC. SUITE 600 - PARKLANE TOWERS EAST ONE PARKLANE BLVD. DEARBORN, MI 48126			NGUYEN, PHUNG	
			ART UNIT	PAPER NUMBER
			2632	

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Please find below and/or attached an Office communication concerning this application or proceeding.

10064691-000707

[0028] Figure 21 a flowchart of the tire location method according to the present invention is shown.

### Detailed Description

[0029] will be used to illustrate the same components. Those skilled in the art will recognize that the various components set forth herein could be changed without varying from the scope of the invention.

[0030] Referring now to Figure 1, an automotive vehicle 10 has a pressure monitoring system 12 for monitoring the air pressure within a left front tire 14a, a right front tire 14b, a right rear tire 14c, and a left rear tire 14d. Each tire 14a-14d has a respective tire pressure sensor circuit 16a, 16b, 16c, and 16d, each of which has a respective antenna 18a, 18b, 18c, and 18d. Each tire is positioned upon a corresponding wheel.

[0031] A fifth tire or spare tire 14e is also illustrated having a tire pressure sensor circuit 16e and a respective antenna 18e. Although five wheels are illustrated, the pressure of various numbers of wheels may be increased. For example, the present invention applies equally to vehicles such as pickup trucks that have dual wheels for each rear wheel. Also, various numbers of wheels may be used in a heavy duty truck application having dual wheels at a number of locations. Further, the present invention is also applicable to trailers and extra spares as will be further described below.

[0032] Each tire 14 may have a respective initiator 20a-20e positioned within the wheel wells adjacent to the tire 14. Initiator 20 generates a low frequency RF signal initiator and is used to initiate a response from each wheel so that the position of each wheel may be recognized automatically by the pressure monitoring system 12. Initiators 20a-20e are preferably coupled directly to a controller 22. In commercial embodiments where the position programming is done manually, the initiators may be eliminated.

[0033] Controller 22 is preferably a microprocessor based controller having a programmable CPU that may be programmed to perform various functions and processes including those set forth herein.

[0034] Controller 22 has a memory 26 associated therewith. Memory 26 may be various

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speed is compared to a mini-spare speed threshold. The mini-spare speed threshold is typically provided by the manufacturer of the mini-spare. Oftentimes the speed threshold is about 55 miles per hour. The mini-spare speed threshold may be programmed at the factory during assembly of the vehicle or may be manually entered into the system. In step 352, if the mini-spare speed threshold has been exceeded a warning signal is generated in step 354. The warning signal may, for example, be an audible signal or a visual signal. The audible signal may be provided through a warning buzzer or chime. The visual signal may provide a display or LED display.

[0077] Referring back to step 350, the distance may also be determined simultaneously with the speed of step 351-354. In step 358, the distance from replacement is measured as the vehicle travels. The distance measured may be activated by the replacement of the spare. That is, the distance may start to be measured when the system receives the mini-spare identification signal. Of course, in a manual system the distance may be determined from the time of manually entering the presence of a mini-spare into the system. The system may also keep track of the cumulative distance traveled if the spare has been used intermittently.

[0078] The system may also activate the timer noted above. By determining a time signal from the time of reset and measuring the vehicle speed at various times, the distance traveled may be generated according to the formula

$$D_i = \sum_{j=1}^i V_j \cdot \Delta T_{j,i}$$

[0079] where  $D_i$  is the distance traveled from the time the mini-spare is started to be used until the  $i$ th measurement of vehicle speed.  $V_i$  is the  $i$ th measurement of vehicle speed, and

$$\Delta T_{j,i}$$

[0080] is the amount of time between the  $i$ th and  $(i-1)$ th measurement of vehicle speed.

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